

ART. XIX.—*Proceedings of the Clinico-Pathological Society of Washington, D. C.*

1867. Dec. 21. *Extra-uterine Fœtation*.—The following case, accompanied by the specimen, was reported by Dr. WM. LEE:—

Mary A., mulatto, aged 28 years, married, large form, fine physique, and apparently with a healthy constitution, never having had any serious sickness since the age of puberty. Has one child eleven years of age, the result of her first pregnancy. Her first husband dying, she married again in 1861, became pregnant and had a miscarriage in 1864, and another in 1865, both occurring at about the third month. About Oct. 15, 1867, she missed her regular menstrual flow and supposed herself to be again pregnant. Soon after, Nov. 1st, she complained of a constant pain in the right iliac region, which became somewhat tender on pressure, with an inability to lie on that side, while the left iliac region, as she advanced in pregnancy, began slightly to enlarge—giving rise to surmises on the part of her old women friends as to the probable sex of the inclosed contents—they deciding that girls always lay to the left.

December 7. Patient engaged this morning in removing the furniture of her house to one some eighteen blocks distant, and rode most of the way on a furniture wagon. The pain in her right side seemed to increase in severity on this day until about 3 o'clock P. M., when she complained that the pain had ceased, but that she felt worse than before, being affected with sickness at her stomach, and having an uncomfortable, indescribable, feeling of distress. She was taken home in a hack, and at 6 P. M. I saw her for the first time. Found her extremities and body very cold, notwithstanding the amount of covering on the bed; no pulse at the wrist, heart beat distinct, slow and regular; lips pale, mind clear, but an indisposition to talk; no pain, but complaining of a constant nausea and faintness; a somewhat distressed countenance, with a constant tossing to and fro in the bed. Ordered perfect rest, warmth to the extremities, stimulants in the shape of hot whiskey, and a dose of pulv. Doveri. The remedies proved of no avail, however, as at 7 P. M. she died, retaining a clear mind to the last.

Thirty-eight hours after death made an examination of the body, assisted by Drs. F. A. Ashford and L. J. Draper. Rigor mortis well-marked. An incision through the abdominal walls showed about an inch and a half of adipose tissue; abdomen and pelvic cavity filled with blood and clots, which nearly half filled a wooden water bucket, capable by measurement of holding two and a half gallons. In one of these clots was found an embryo apparently of about ten weeks growth with the membranes and a part of the chorion attached. The uterus was enlarged, with thickened walls, and presented on its fundus, both anterior and posterior surfaces, a few small vesicular cysts. It measured in breadth, at the fundus, from the insertion of the Fallopian tube on one side, to a corresponding point on the other, three inches; and in length, from a central point on the fundus to the os externum, four and a half inches. The length of the cervix from the os internum to the os externum measured one and a half inches. The uterine walls were intact, no lesion being appreciable in their tissue. On making a longitudinal incision into the uterus, the walls were found to be thickened to the extent of three-quarters of an inch, with large open sinuses interspersed throughout their

tissue; the cervix and os externum contained a mucous plug; the right Fallopian tube seemed to be impervious—the left had a minute opening into it. Within the walls of the uterus was a thickened, rugged, apparently very vascular decidua, covering the entire internal aspect of the uterus down to the os internum; the anterior deciduous coat was readily peeled off, leaving beneath it the smooth denuded wall of the uterus; that of the posterior wall was left *in situ*. The left ovary was not examined carefully, but seemed to present nothing unusual; Fallopian tube normal; in the right ovary there was no sign of a corpus luteum, but it contained a large cyst at least half an inch in diameter inclosing serum. The right Fallopian tube at a point about midway between the uterus and ovary, or, perhaps rather nearer the uterus, was enlarged to the diameter of two inches—having a rupture on its surface one and a quarter inches in its long diameter, and contained clotted blood with what appears to be a portion of the chorion. We did not seek further for the bleeding vessel, as it was undoubtedly situated within the tubal tumour, and to disturb its contents would tend to injure the value of the specimen.

The cause of death having been found, no further examination of the body was deemed necessary.

1868. Jan. 9. *Hemiplegia following the inhalation of Nitrous Oxide; subsequent Typhoid Fever.*—Dr. F. A. ASHFORD, Assistant Surgeon Columbia Hospital for Women, reported the following case:—

Lizzie J., æt. 16 years, was admitted to Hospital September 16, suffering from hemiplegia of left side. Born in Italy; had been in this country but a year or two. Had never menstruated; was well developed; of a lively temperament, and had always enjoyed good health until two weeks before admission, when, having suffered for several days with backache, flushes, and intense odontalgia of four upper incisor teeth, she, believing her trouble arose from them, visited a dentist, and while under the influence of nitrous oxide gas, had them extracted. Said, when first aroused, they told her she had been insensible for two hours. Her head ached very severely, and she started home, but grew faint and dizzy, and remembers little that occurred until next morning, when she found her left arm useless. Pain in the head continued; was at times delirious, so as to require being tied in bed. A week afterwards visited a woman who gave her ten "electric baths;" but they made her worse, and increased the pain in her head. Her lower left extremity soon became affected. When she entered hospital she seemed somewhat anæmic; pulse rather weak, but good; temperature 98° by axillary thermometer; respirations 20. The left facial muscles considerably involved, and, when eating, the food got outside her teeth, so that mastication could not be accomplished except by removing it to the right side. This difficulty arose principally from paralysis of buccinator. Laughed only on one side; her tongue, when protruded, inclined to the left, and at times articulation was difficult. The left side of her head, as she expressed it, felt twice as large as the right; headache frequent. There was loss of sensation, as well as the power of motion in her left upper and lower extremity. No trouble with bladder; bowels sluggish; had not been moved for eight days. Could walk by dragging her foot along and holding to some support.

The treatment adopted was essentially tonic, with a generous diet, and

a pill morning and night, containing $\frac{1}{3}$ gr. of extract of *nux vomica*, which relieved constipation.

Oct. 1. Could walk up and down stairs with the aid of the baluster, and could carry her hand to her head by a series of jerks, but could grasp nothing with the least degree of force. Sensibility returned, inasmuch that she became sensible of pain when the affected parts were pinched, but could not distinguish whether one or two points of a pair of compasses touched her, when separated one-fourth of an inch. Her urine was examined by Dr. Southworth; colour and odour normal; sp. gr. 1020; acid; deposit slight, gelatinous, consisting of a few crystals of oxalate of lime and pus-corpuscles.

Dr. J. H. Thompson, surgeon in charge, noticing a similarity of some of her movements to chorea, suggested the use of bromide of potassium in 3ss doses *ter die*, and spine to be painted with ethereal tr. of iodine. The bromide was continued for ten days, but with doubtful efficacy. (I would here state, that no cerebral symptoms, as noticed by Dr. Hammond, were manifested.)

Oct. 27. Suffering extremely with headache; has been feeling badly for several days, with pains in her back, and anorexia. In the evening, epistaxis was profuse, and continued, at intervals, for several days, entirely relieving her headache. On the 29th, temperature was 101.8° ; pulse 101; respirations 24. On examination of a chart which I have had made, showing the range of temperature, pulse, and respiration up to the thirty-eighth day of fever, I find that, on the sixth day, the temperature was 104.3° , or ranged between this and 103° until the tenth day, on the morning of which it was 100° , and in the evening 102° . The evening exacerbations now became well marked, the temperature on the twenty-first day sinking to 98.6° . Diarrhœa was present on the fifth day, and the rose-coloured eruption on the 11th. Her urine, examined frequently, showed nothing very abnormal until the twelfth day, when pus and fatty granular casts appeared; nineteenth day, pus, granular casts, vesical and vaginal epithelium, and vibriones, composed the slight deposit. By December 3d the urine became normal, and no casts could be found.

Her treatment from commencement of fever consisted of stimulants and nourishment; the former embracing wine and whiskey, the latter in the form of beef-essence; occasionally liq. ammon. acetatis, Dover's powder, and ol. turpentine from twelfth to twentieth day. On thirty-third day relapse took place; temperature rose rapidly to 103° , with great prostration; very rapid and weak pulse, and delirium. For several days it remained between 103° and 104° , but soon after declined. During her relapse, Dr. J. H. Thompson seconded my request to use strychnia and belladonna. She took $\frac{1}{24}$ gr. strychnia, and $\frac{1}{2}$ gr. ext. belladonna every six hours until its specific action commenced, which was in forty-eight hours. Afterward took 20 gtt. elix. phos. ferri, quiniæ et strychniæ, *ter die*, and her improvement was rapid in every respect. . . .

Did the *nitrous oxide* produce congestion of the brain and effusion into its ventricles or tissue, or did the hemiplegia result, as was at first supposed, from exhaustion? (The fact of having taken nitrous oxide came to our knowledge some time after her admission.)

This young lady was of that age when she ought to have menstruated. Might not her organism have been at that time undergoing menstrual excitement, as manifested by "pains in her back, flushes, and toothache?"

and may not this have been the predisposing cause of her apoplectic condition produced by the gas? Again, what relation exists between her pathological condition and typhoid fever? At this time, when the theory is pressed that typhoid fever is essentially a nervous fever—that Peyer's patches are but tufts or ganglia of the great sympathetic system, might we not discover some verification of its truth in this case?

Jan. 8. Since the above was written this patient has been daily improving, and now walks about with ease. Her face is unaffected, and her extremities are regaining their wonted strength; has no headache, and is anxious to return home. Still takes the phosphates of iron, quinine, and strychnia.

January 30. Pyæmia following a comparatively trivial Surgical Operation.—Dr. A. F. A. KING reported the following case: C. N., a black man, æt. 28; labourer; general health good; not habitually intemperate, but occasionally becomes intoxicated, when his appetite for drink is fully indulged. On several occasions he has received cuts and bruises while intoxicated, but they have always readily healed. Dec. 25, while in a state of inebriation, he fell under the wheel of a street car and received the following injury: the tissues of the palmar surface of the little finger were crushed and grazed off down to the phalanges, leaving these bones almost bare, and the second phalanx broken. The neighbouring ring finger was crushed and broken still more, the extreme end of it, together with the nail and ungual phalanx, being cold, discoloured and insensible. The middle finger grazed on its palmar surface but not broken. The axilla between the ring and middle fingers was split up into the hand, on the palmar surface, and deep in between the metacarpal bones, to the distance of one and a quarter inches. In addition to these injuries, there was a severe contusion over the right scapula behind, and on the top of the shoulder over the acromion. Two hours after the accident, there were no symptoms of shock, and the patient being very drunk and unmanageable, the wound was simply cleansed and cold water dressing applied.

On the succeeding day the same treatment was continued.

Dec. 27. The ring finger amputated through first phalanx, one-third its length from the metacarpo-phalangeal articulation. Chloroform was inhaled to the amount of $\frac{1}{2}$ iss before anæsthesia was produced. The tissues of the stump were swollen and infiltrated with serum, at the time of operating.

During the first few days succeeding the operation the hand, fingers, and forearm were kept constantly irrigated with water, more or less cold, to suit the sensibilities of the patient. The free surfaces—all of them—soon began to discharge laudable pus in normal quantity, and were covered with healthy granulations; the bowels becoming costive (owing probably to an occasional opiate given at bedtime), a dose of magnes. sulph. was taken with relief. All heat and redness of the parts having subsided a few days after the amputation, the cold dressings were discontinued, and lint with simple cerate substituted in their stead.

By the 7th of January, the stump had united, except on the side towards the middle finger, where the tissues had been torn by the injury. All other raw surfaces granulating well, a line of new skin creeping over their circumference, and the discharge of pus in every way normal. No fever or pain, tongue clean, appetite and spirits good. The bowels, how-

ever, not having been moved for three or four days, $\frac{3}{4}$ ss castor oil was ordered.

Dating from the operation of this generally mild and harmless medicine, the whole aspect of the case was changed. On the afternoon of January 7th, and throughout the whole of the succeeding night, he was purged incessantly.

Jan. 8. Considerably exhausted, very restless and nervous, no sleep last night; tongue coated with white fur. The wounds are dry and inactive, the discharge of pus from them having almost entirely ceased. Ordered warm poultices to wounds, and mixture containing tr. opii and spts. eth. co., to be given every two hours, until bowels quiet and patient sleeping. Also nutritious liquid diet, and some whiskey.

9th. Was attacked last night with severe pain, and there is now exquisite tenderness of the right shoulder, both in the vicinity of the joint, over the scapula, and half way down the arm. Eyes very slightly yellow, tongue heavily coated, breath offensive, but no pyæmic odor (sweetness) discoverable in it; pulse 104; skin dry; urine scanty and high coloured. The bowels were quieted and sleep produced during the first part of the night after taking the anodyne mixture. The wounds still dry, or discharge only a few drops of *reddish looking pus*. With a view of stimulating the secretions, especially of the liver, kidneys, and skin, he was ordered a small dose of blue pill, and a mixture containing spts. eth. nitrosi; fld. extr. taraxacum; and vin. ipecac. The anodyne at night. The painful shoulder was painted with cantharidal collodion, and poultice directed to be applied after the skin had vesicated.

10th. Nine A. M; pulse 120; eyes and skin yellow; tongue dry, coated, and beginning to become brown in centre. Has vomited once only. Though at times feeling unpleasantly cool, he has had no well-defined rigors. Urine of deep amber colour and in tolerable quantity. Bowels open once. Great nervousness with trembling of the lips and fear of being handled. On gently pressing almost any part of the body, he cries out with pain, but bears it without complaint after the first touch is past. This hyperæsthesia was, however, most marked, in the upper extremities. The shoulder is less painful, but still very tender to the touch; no fluctuation, indicating abscess, could be detected in it. Wounds dry or nearly so, somewhat enlarged by sloughing. There is now also pain in the right chest, with an occasional cough, but no expectoration. Dulness, crepitant rale over lower portion of right chest anteriorly. Ordered beef-tea and whiskey in ample quantity, every two hours with anodyne at night.

11th. Wounds unchanged. Pulse 120 and feeble; deeply jaundiced. Urine scanty and high colored. Bowels not open. Tongue dry, brown, and thickly coated. Less pain in the shoulder, more in chest. Hardly any cough. Expectoration scanty, very viscid, tenacious, and of a light bluish or leaden colour. Respirations forty-eight per minute. Dulness and bronchial breathing of lower right breast anteriorly. Slight pneumonic symptoms of left breast also. Continues to take beef-tea, egg-nog, and whiskey, though in less quantity, from his unwillingness to swallow them.

12th. General symptoms much the same, but with increased debility. He is apathetic and indifferent; though very sensitive to pain on being handled. Respirations forty-eight and short. He is unable to cough, and refuses to take anything, from his alleged inability to swallow. A

pint of high-coloured urine drawn off with catheter. He continued to sink, the mind remaining always clear, and died seven and a half P. M., eighteen days from the date of the accident, and five since the day on which he was purged by castor oil, immediately after which his pyæmic symptoms first made their appearance.

Autopsy eighteen hours after death.—Rigor mortis well marked. General surface distinctly yellow. The trunk is quite warm, though the body has been in a cold room without fire, and the weather very severe. In the inferior lobe of *left lung* beneath the pleura, so as to be distinctly seen through that membrane were five or six yellow abscesses, about the size of a split pea. Lung tissue generally much congested (except at apex) and in some parts hepatized. Inferior and middle lobes of *right lung* hepatized almost throughout their whole extent. Several small abscesses beneath the pleura, like those on the left. None of these abscesses could be found in the inner texture of the lung, but only on the surface. Heart deeply tinted yellow, but presented no other abnormality. *Pleura* was injected throughout. *Liver*: A mass of its tissue on the superior surface of the right lobe, immediately beneath the diaphragm, and equal in size to the human fist, was found disorganized into shreds; a large abscess having formed and broken at this point. It contained, however, not fluid pus, but a soft semi-solid matter, having a yellowish-brown and somewhat hemp-like appearance.

Another abscess, about the size of a hen's egg, and containing the same yellowish-brown disorganized tissue, was found deeply situated in the central portion of the same lobe. Also several other smaller abscesses. Almost the entire right lobe was of a dark bluish-green colour from congestion. The left lobe was also slightly congested in its inferior part, otherwise healthy. Lobus quadratus, and lobus Spigelii normal. The gall-bladder was quite full of thick inspissated bile, of a blackish-green colour, and so tenacious that strings of it could be stretched out three feet in a horizontal direction without breaking. *Spleen* slightly congested; and perhaps slightly softer than natural. Size normal. *Kidneys* normal. *Bladder* closely contracted and empty.

On opening the right shoulder-joint, there came out thick sanious pus, having a somewhat fetid odour. The contused parts about the shoulder were of a dark liver colour and infiltrated with serum. The left elbow-joint (in which the patient had also complained of great pain) was opened, but contained no pus.

The revelations of the autopsy were therefore chiefly these: double pneumonia, advanced to hepatic consolidation, with minute abscesses beneath the visceral layer of the pleura. Intense congestion and large abscesses in right lobe of liver. Gall-bladder filled with inspissated bile. Abscess of the right shoulder-joint.

February 13. Menorrhagia and Cervical Leucorrhæa.—The following cases were reported by Dr. WILLIAM LEE, to illustrate the benefit of the sponge tent in such affections:—

CASE I. M. J. C., æt. 20, mulatto, native of United States, unmarried, with one child. Has never been subject to disease, and is of robust habit.

Jan. 30, 1868, found her suffering from an excessive menstrual flow; six weeks before had her regular menstrual period, at the end of four days being checked for a week's time, then recurring and continuing without intermission to date, the soiling at least a half dozen napkins

per day with fluid blood, passing no clots. She can assign no cause; menses always regular previously; appetite somewhat impaired; looks anæmic and feels very weak, with a constant pain in the small of the back; bowels regular.

Made a vaginal examination, finding the os congested, low down, and to the right; fundus uteri in the left iliac fossa situated anteriorly, and but little enlarged; no abrasions on os; no leucorrhœa; cervix filled with a reddish fluid oozing out of os. Introduced a sponge tent dipped in glycerine, and retained in place by a wad of cotton batting saturated with the same.

31st. Patient has had a profuse pinkish discharge, with slight pain in the left iliac fossa of a bearing-down character. Removed the wad and sponge tent, which was fully dilated, neither of them giving any odour; os dilated sufficiently to introduce index finger into uterus, but could discover no morbid growths; position of os and fundus somewhat more normal; still a slight reddish ooze from the os. Again introduced a tent, as before, and of a somewhat larger diameter.

Feb. 1. Patient feels much improved; watery discharge occurred as before, but has lost its pinkish colour; slept well; no pain to speak of, but a sense of fulness in the neighbourhood of the uterus. Removed tent; no odour; no sign of existing hemorrhage; os and fundus apparently in the axis of the pelvis. Ordered perfect rest and attention to diet.

11th. Patient visited me at my office, and has had no return of discharge or pain, and is feeling quite well.

In this case I wished to test the benefit of the sponge tent alone, and so used no other treatment, with the exception of the glycerine, which however is, I think, an important one. I was induced to try the tent from consulting Dr. Sims' work. I think it acted as a compress and stimulant—as a compress, by adapting itself closely and firmly to the walls of the cervix and uterus, thereby tending to obliterate in a measure the minuter capillaries in its path, and called in muscular contraction to aid it by stimulating the uterine muscular fibres to endeavour to expel a foreign substance. There was here present a tendency to antero-lateral version. Am I not warranted in crediting this muscular contraction as materially aiding to correct the malposition?

As to the insertion of a second tent, immediately after removing the first, with Dr. Sims's ideas in my mind, I feared at least some increase of pain, but took the precaution with both of removing the tents before introducing the speculum.

The glycerine seemed to exhaust the uterine bloodvessels of all the serum they could possibly furnish, relieving all congestion, and, from its antiseptic properties, allowing the tent and wad which had remained in situ for twenty-four hours to be removed without odour.

CASE II. Mrs. F., æt. 28 years, white, native of United States, married, with four children, having had excessive flooding at the time of the birth of each.

May 15, 1867. Called in during absence of family physician, Dr. W. G. H. Newman, and delivered her of a male child; vertex presentation; twelve hours in labour; the placenta and membranes coming away promptly; the uterus contracted firmly, but again relaxed with considerable flooding; patient fainted twice; hemorrhage finally controlled by the use of ice and ergot, but treatment was pursued for at least four

hours after the delivery of the secundines. During the ten days succeeding delivery, the patient was subject to attacks of nervous, fainty spells, with marked anæmia and loss of appetite; at which time Dr. Newman having returned to the city took charge of his patient, and I saw her no more until

Aug. 13, when I found her suffering from an excessive menstrual flow, which lasted five days, and was finally checked by the alum plug, and internal use of plumb. acet. cum opio. She was in a very nervous state, having just lost her child. After the flow was checked, on making a vaginal examination, I found the os uteri low down in the vagina, abraded and engorged, with cervical leucorrhœa. The treatment pursued during the month was locally the application of arg. nit. in substance to the cervix and os; cold hip-baths; internally, ferri valerian et quin. sulph. āā gr. j ter in die, and potass. bromid. in gr. xx doses, with abstinence from sexual intercourse.

Sept. 2. The menses returned, anticipating their proper period by about eight days; the flow was excessive, lasting about seven days, and finally checked as before, but recurred on the 17th for two days. Abrasions and leucorrhœa still marked.

On *Oct. 4* and *Nov. 1*. The menstrual flow returned, lasting about a week each time, and requiring active measures as before to check it. The patient now complains of great weakness, headache, and pain in the back, with a leucorrhœal discharge; and on

Nov. 15 made a speculum examination, finding os engorged and inflamed; no abrasions; cervix filled with a leucorrhœal discharge; cauterized cervix, and used sponge tent and wad of cotton batting, with glycerine.

16th. On removing tampon, found it dripping wet; tent dilated; no odour; os was pale and open; no sign of discharge from cervix. Patient was relieved of the pain in the back and head, and had a profuse watery discharge, but no sign of blood.

27th. No return of symptoms, but used the glycerine tampon, producing another profuse watery discharge; and on Dec. 1st, the menstrual flow returned in normal quantity and duration. The menstrual period also recurred in January, being moderate and regular; the patient's general health being much improved.

This patient was unfortunate in having for a husband a man addicted to drink, and in consequence disposed to excessive venery. She had become anæmic from the exhausted nerve force, and the constant drain upon the arterial system of the uterus. The uterus has passed into a state of chronic congestion and irritation, and the slightest ovuline excitement stimulates the uterus to relieve itself of its abnormal condition, even to the jeopardizing of life. Careful examinations were made from time to time, and no abnormal growths discerned.

In the general treatment I found the potass. bromid. answer very well at first to correct the nervousness, but the system became accustomed to its use, and I substituted for it the tinctures of assafoetidæ and valerian with advantage. I also derived great benefit from the assiduous use of iron in its different forms.

NOTE.—In order to complete the history of the last case, I would state that, in the month of February, 1868, Mrs. F. became again pregnant, passing through her term comfortably, and on October 8th was delivered of a female child, the placenta and membranes coming away promptly and the uterus contracting firmly; but, despite my former experience, uncomfortably impressed upon my mind, I was

unable to prevent a profuse hemorrhage. The child died within ten days of erysipelas neonatorum. On October 20th and 30th the patient was seized with severe flooding; no clots, placental or membranous debris; os dilatable, and uterus but little enlarged and firm; both times requiring the use of the tampon to check the flow. November 1st. Patient was attacked with pblegmiasia dolens of the left leg, and a constant deep-seated pain in the region of the uterus, which subsided almost entirely under treatment in about three weeks' time. At the commencement of this attack, on using tr. ergot to control the flow, she complained of no uterine pain whatever, but a severe spasmodic pain in the left leg with each dose. December 3d and 29th. On both these occasions has been attacked with severe flooding, requiring the use of the tampon and ferri persulph. to check the flow; it lasting from four to five days each time.

February 20. Spurious Labour Pains at Fifth Month—Accompanied by Convulsions.—Dr. D. W. PRENTISS reported the following case:—

Mrs. M., æt. 22, brunette, full habit, native of the United States. Mother of one child, had convulsions following previous labour, and lasting for two weeks, during which time she lay unconscious.

June 20, 1865. Supposes herself to be in the fifth month of gestation, having felt motions of child on 12th of June. Abdomen moderately enlarged, quite soft and flaccid.

25th. Ate a hearty dinner of cabbage, beets, new potatoes, and squashes, besides meat.

On morning of 26th, had paroxysmal pains in the lower part of abdomen at intervals of three-fourths of an hour, which, however, became more severe and frequent until afternoon, when I was called in and found her with all the symptoms of threatened abortion, except there being no discharge from the vagina. The pains were very severe, and occurred at intervals of five or ten minutes—the abdomen becoming hard and the patient straining with each pain. The patient was very confident herself that miscarriage was about to take place. The abdomen was soft and compressible between the pains, and I thought I could distinguish fetal motions distinctly, although they were not strong. Patient unable to pass water except in the sitting posture. Twenty drops McMunn's elix. of opium ordered at once and to be repeated if necessary. Two hours later, condition of things much the same; pains even stronger than before, but not so frequent. On examination per vaginam, found the os uteri quite low down in pelvis, directed backwards; the fundus thrown a little forward, giving rise probably to the difficulty experienced in voiding urine in the morning. The os was roughened as though ulcerated, and tender to the touch. I purposely kept my finger in position until the occurrence of the next pain, but there was no hard tumour pressing down upon, nor any rigidity of, the os. The result of the examination gave rise to the belief that the pains were due rather to spasm of the bowels and abdominal muscles than to uterine contractions. 9½ P. M., was sent for again on account of the patient's having convulsions—had eight or ten in quick succession previous to my arrival. Immediately sent for a mixture of chloroform and sulph. æther. Before its arrival two convulsions occurred sufficiently severe to require the strength of two men to restrain her. The anæsthetic was administered on a handkerchief, 3ij being used altogether, and the patient under its influence passed from the stage of intoxication to a quiet sleep. I remained until eleven o'clock, watching for a return of the convulsions, but the gentle sleep continuing, I left with instructions to be sent for if they returned. They did not return, however, and the patient slept until daylight, Tues-

day morning, when, the pains recurring, she awoke. The pains were now neither so strong nor so frequent as yesterday, but she was nervous, tremulous, and a little wandering in mind. Complaints of intense headache; bowels had not been moved; water passed freely; pulse, 112. Ordered blood to be taken from back of neck by cupping, to the extent of sixteen ounces.

27th, afternoon. Paroxysmal pains continue about the same. Still no vaginal discharge. Ordered tincture of valerian in half-drachm doses. Headache much relieved by the cupping.

28th. Improved. Pains and headache less; bowels not yet being opened, an enema of castor oil and oil of turpentine was ordered; also, full doses of quinia. Injection not operating by afternoon, 3ss castor oil was administered by mouth.

29th. Much better; scarcely any pain, but still very nervous; bowels not yet moved; bottle citrate magnesia sol., ordered. Quinine and valerian continued.

30th. Convalescent. Still no action of the bowels. Treatment continued.

July 3. Entirely recovered. Bowels freely moved since last record.

To complete the history of the above case, I make the following extract from my journal:—

Sept. 29, 1865. Attended Mrs. M. in confinement. Vertex presentation. Duration of actual labour, seven hours. Female child of eight months' development, healthy. Funis coiled once around neck. Mrs. M. had fallen down stairs, Sept. 14th, which caused a bloody discharge from vagina continuing two days. On the 22d, I was called in and found her suffering from severe headache, with paroxysmal pains in the abdomen, occurring at irregular intervals. Bearing in mind the previous attack and fearing convulsions in this; cups were applied to back of neck, and ext. belladonnæ administered internally. The headache was relieved but the abdominal pains continued at intervals up to ten o'clock P. M., Sept. 29th, when they became regular and hard, and the child was born at five o'clock the following morning. Mrs. M. at her previous confinement (Nov. 1863) had very severe convulsions commencing the eighth day *after* confinement and continuing two weeks."

It will be seen by comparing the date of the subsequent delivery (the child being of eight months) with the date of quickening, that the latter took place at the usual time, viz: four and a half months, and that the convulsions occurred at five months.

Dr. Prentiss called attention to two points in the above case which he considered worthy of attention: 1st. The early stage of pregnancy at which spurious labour-pains occurred. 2d. The supervention of convulsions as early as the fifth month, and the very happy effect of the chloroform in controlling them. Of the former, I know not whether it is really so uncommon to have false labour-pains in the early months of pregnancy or not; but there is no mention of the fact in text-books nor medical journals that I have been able to find. These symptoms are neither unusual nor unlooked for during the latter days of gestation, and we are therefore on our guard at that time.

The frequent occurrence of cases believed to be instances of threatened abortion, and which is considered to be averted by appropriate treatment, renders it possible that the condition of the patient above described, may exist in many instances without attracting especial attention; and this is

the more probable, since the usual treatment for threatened abortion would, to a considerable extent, be proper treatment for false labour-pains.

The pathology in the present case, I consider to have been principally spasm of the stomach, bowels, and abdominal muscles, extending its influence to the structure of the uterus itself, producing a neuralgic condition of this latter organ; the cause of spasm being irritating ingesta of cabbage, new potatoes, beans, etc., remaining in the alimentary canal; and the remote cause of the womb's participating being an irritable condition, induced by previous attempts, not heretofore mentioned; on the part of the patient to produce miscarriage, drinking tansy and penny-royal tea, etc., and among others, the novel expedient of standing on her head. An evidence of the neuralgic element present in the case, is to be found in the beneficial action of quinia. I plead ignorance as to whether neuralgia of the uterus alone is capable of simulating labour-pains.

2d. The second consideration, however, is by far the more interesting. The usual time for the puerperal convulsions is either immediately preceding confinement, during that process, or immediately subsequent to it; the second period mentioned being the most favoured one. Ramsbotham mentions three cases only, that he has been able to collect, occurring in the earlier months of pregnancy—two from Perfect, before quickening (*Cases of Midwifery*, xlv. and xlv.), and one from Meigs, at five months (*Meigs's Sys. Obs.*, p. 408). I have examined the complete file of Braithwaite's *Retrospect* for other such cases, without success.

I conclude, therefore, that puerperal convulsions in the earlier months of pregnancy are of rare occurrence.

At this point, also, I wish to call especial attention to the immediate and permanent effect of the anæsthetic in affording relief, as having an important bearing upon the pathology of this terrible disorder.

Writers upon the pathology of puerperal convulsions may be divided according to their views, into four classes, as follows:—

1st. Those who consider the disease a form of apoplexy, of which class are Ramsbotham and Meigs.

2d. Those who explain the phenomena upon the theory of reflex spinal irritation and pressure, of which class W. Tyler Smith of London, is the representative.

3d. The *Eclectics*, who refer some cases to the one and some to the other theory.

4th. Those who hold to the blood-poisoning theory, as indicated by the albuminuria.

A discussion of these various theories at present would occupy too much time; they are merely offered as suggestive points for discussion.

It will not, however, be amiss to follow out some indications of pathology deducible from the case in hand.

It seems to my mind clear that the cause of the convulsions is to be found in the reflex irritation.

Here was a gravid uterus, rendered irritable by an indefinite number of attempts to produce abortion; here was superadded an alimentary canal, overloaded with the most indigestible of vegetables; and here, finally, was permanent relief obtained from the administration of the most powerful agent we have for the relief of nervous excitation. This patient was a plethoric woman, who might naturally be expected to be liable to apoplexy. But if the attack had been apoplectic, would not the chloro-

form have increased the mischief by increasing the amount of venous blood in the brain?

What explanation should also be given of the powerful muscular convulsions, which are never found in true apoplexy? The medulla oblongata and spinalis are the seat of involuntary muscular action, and to them should we look for the proper explanation of this phenomenon. The history of this case is, therefore, an argument in favour of reflex nervous irritation as a cause of puerperal convulsions, as indeed are, I think, all those cases which are benefited by the anæsthetic treatment. It would be very interesting to follow out the train of argument here suggesting itself, into purely theoretical domain; but the limits of the present paper would not allow of its completion. I shall, therefore, content myself with stating that of twenty-three cases of puerperal convulsions collected from "Braithwaite," those treated by remedies addressed to the nervous system gave the most favourable results:—

7 cases treated by inhalations of chloroform, morphia, or galvanism.

13 cases treated by bleeding and purgatives.

3 cases no treatment.

In that class of cases treated by bleeding and purgatives, there was generally but little apparent good effect from the remedies, the convulsions only ceasing on delivery. The same is true of that class in which there was no treatment.

In several of the cases treated by chloroform inhalation, the convulsions were cut short and did not again return, while the labour progressed favourably to its termination; and in *all* in which the anæsthetic was used, there was marked benefit.

As having a possible bearing upon the disease under consideration, I will bring this paper to a close by briefly mentioning

A case of convulsions attending abortion at six weeks, from excessive loss of blood.

June 7, 1866. Mrs. K., a stout, plethoric German, aged about thirty-three years. Had an abortion at six weeks, caused by over-exertion. Adherent placenta, with excessive loss of blood, to the extent of sixty or seventy-five ounces. Controlled by tr. ergot and persulphate of iron.

8th. Recurrence of hemorrhage to same alarming extent as during previous day; os uteri dilated with fingers and placenta removed. During this operation, which occupied perhaps twenty minutes, the patient had slight convulsive attacks, with loss of consciousness, every few minutes, and the prognosis seemed most unfavourable; but the placenta being removed, the hemorrhage ceased, and she finally recovered under stimulants and tonics.